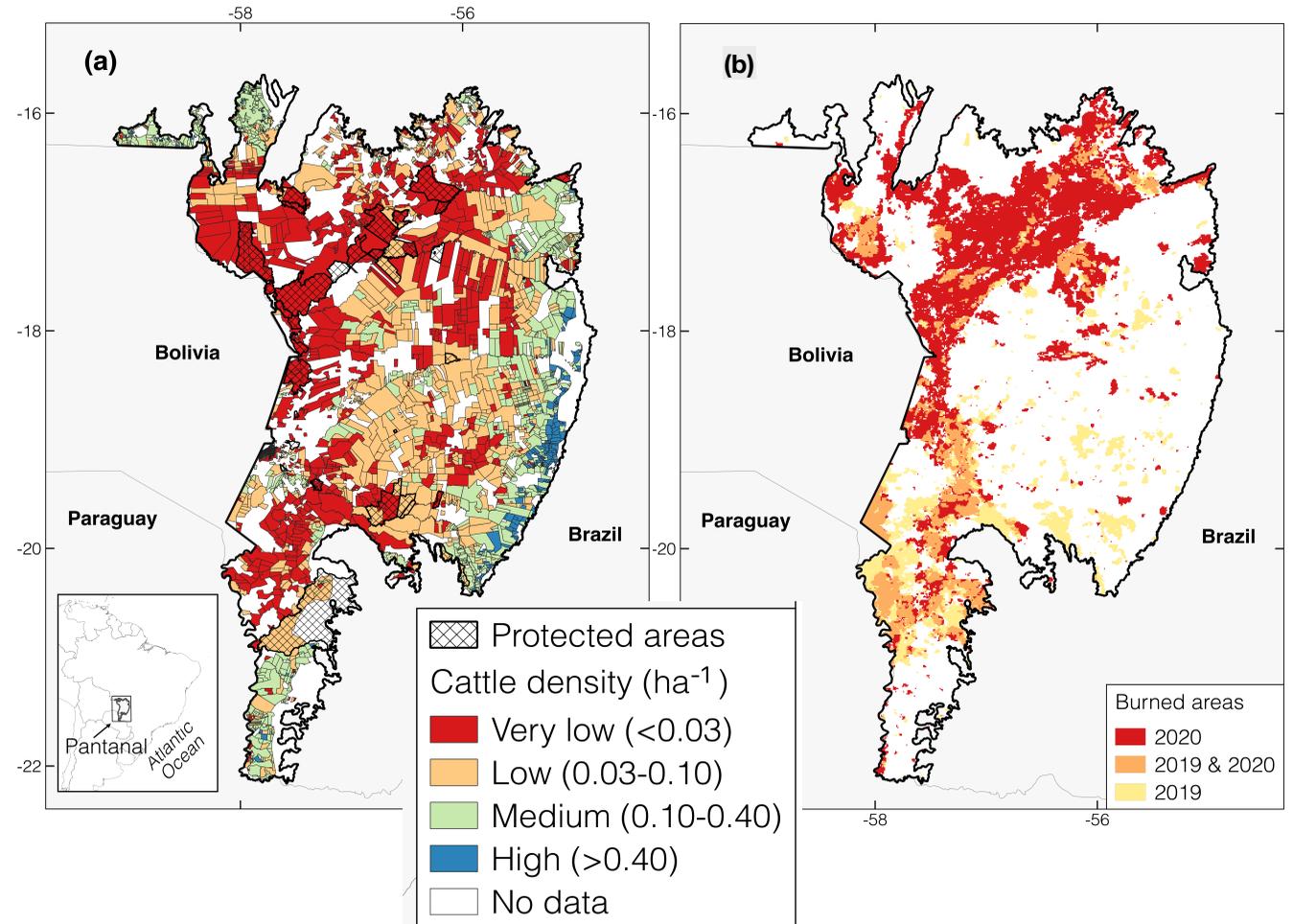


# Unprecedented Human-Ignited Pantanal Fires May be Changing the Ecosystem

- The Pantanal, which spans four countries in South America, is the **world's largest tropical wetland**.
- **About 29% of the Pantanal burned in 2020**, according to Goddard scientists and collaborators using MODIS data in a recent study.
- Ongoing drought conditions were uniform across the domain, but the 2020 fires happened **disproportionately over natural and low-cattle-density areas**.
- The study revealed that those fires were likely the result of **human ignition sources**, raising concerns about the vulnerability of natural ecosystems to fire-driven degradation.
- An advanced NASA-developed model showed that post-fire impacts result in a **clear decrease in evapotranspiration (by ~9%) and an increase in runoff (by ~5%)** over the natural areas.



Pantanal's (a) land use by cattle density, (b) burned areas in 2019 and 2020.